ORDER NO. 05-898

ENTERED 08/09/05

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

LC 38

In the Matter of	)	
	)	ORDER
CASCADE NATURAL GAS	)	
	)	
2004 Integrated Resource Plan	)	

DISPOSITION: PLAN ACKNOWLEDGED WITH MODIFICATIONS

Cascade Natural Gas Corporation (Cascade or the company) filed its 2004 Integrated Resource Plan (IRP or plan) on December 16, 2004. The plan is intended to meet the requirements of the Public Utility Commission of Oregon (OPUC) Order No. 89-507. The plan was docketed as LC 38.

OVERVIEW OF CASCADE'S INTEGRATED RESOURCE PLAN

Cascade's 2004 IRP is organized into two volumes. Volume 1 provides the plan text, which includes the demand forecast, distribution system enhancements, demand side resources, supply side resources, resource integration, two-year action plan, and a glossary of terms and acronyms used in the plan. Volume 2 includes seven appendices that provide technical and procedural details of the plan and planning process.

Cascade's IRP describes the basic components of the company's planning process. The planning process includes a forecast of its future market demand, assessments of demand-side and supply-side resource options, consideration of planning uncertainties, distribution system enhancements, analysis and selection of resource options for meeting future needs, and identification of actions required in the next two-year period to carry out the company's resource strategy and additional planning activities.

· *Forecast.* Cascade's forecasts of peak and annual demand over the twenty-year planning horizon were constructed using an internal econometric model for its residential, commercial, and industrial classes. Cascade developed forecasts for each of the 90 towns in its Oregon and Washington service territories and aggregated the results into state and total system forecasts. The company forecasted low, medium, and high gas consumption scenarios, but believes the medium growth forecast scenario is most likely to occur. Under this scenario, Cascade's customers are anticipated to grow at an average annual rate of 2.48% over the twenty-year forecast period. Firm core market demand is

projected to grow at an annual growth rate of 1.57% for both peak and annual requirements.

· *Demand-Side Resources.* Cascade evaluated several energy efficiency measures and program options during the 2004 IRP process. In the residential sector, the company evaluated the cost effectiveness of continuing its high efficiency furnace and water heating program and also adding a low-income weatherization program in Eastern Washington. The low-income program evaluated in the plan is similar to the state-mandated weatherization program currently available to all of Cascade's residential customers in Oregon. In the commercial and firm industrial (C/I) sectors, Cascade evaluated four potential programs to acquire therm savings from ceiling insulation and high efficiency HVAC, water heating, and cooking equipment. Potential savings for the four C/I programs were estimated over five years in Cascade's Oregon and Washington service territories.

· *Supply-Side Resources.* Traditional supply-side options available to gas utilities include storage and flowing gas supplies through interstate pipelines. Cascade's flowing gas supplies originate in the Canadian provinces of British Columbia and Alberta and in the U.S. Rocky Mountain area. Cascade's supplies include annual contracts, firm winter peaking contracts and spot gas, as it is available. Cascade contracts with Williams Gas Pipelines West (WGPW) for interstate pipeline transportation into the company's service areas in Washington and Northeastern Oregon. Cascade has assigned some of its WGPW pipeline capacity to the company's non-core industrial customer base until such time as core ratepayers need it. Cascade also contracts with Gas Transmission Northwest (including the upstream capacity on Trans Canada Pipeline) for interstate pipeline transportation into the company's service areas in Central Oregon and with Duke Energy Gas Transmission in British Columbia. Cascade releases excess pipeline capacity into the secondary market when the capacity is not fully utilized. Cascade has contracts for underground storage at Jackson Prairie and at WGPW's Plymouth, Washington Liquefied Natural Gas (LNG) storage facility. Cascade evaluated incremental pipeline capacity, underground storage, satellite LNG storage, and citygate peaking contracts as options to meet additional capacity needs over the planning horizon.

· *Integration Strategies.* Cascade's preferred resource portfolio, developed using the company's linear optimization model, projects the need to acquire short-term winter period firm and peaking resources (citygate peaking contracts) beginning with the 2007/2008 heating season. Cascade's analysis continues to show additional storage resources as a cost-effective option, with on-system LNG alternatives preferred to those storage options that required additional pipeline transportation. Storage resources may need to be added as early as 2006 on the WGPW system, if current contract arrangements are not extended for storage capacity. By the end of the 20-year planning period, Cascade's model suggests an optimal portfolio mixture of 1,390,000 therms per day of incremental firm supplies, 689,000 therms per day of incremental peaking supplies, and

325,000 therms per day of incremental storage will need to be acquired to meet core customers' needs.

Six demand-side programs were evaluated by the company's resource optimization model for the 2004 IRP: the existing high-efficiency equipment rebate program (residential furnaces and water heaters), a new Washington low-income weatherization program, and four new C/I programs that would offer incentives on ceiling insulation and high efficiency HVAC, restaurant, and water heating equipment in both Oregon and Washington. DSM resources were modeled as "must take" resources. This assumption allowed Cascade to compare the costs of the optimum portfolio when investments were made in a specific DSM resource to the cost of the portfolio when the resource was not acquired. The analysis showed that implementation of the DSM programs would reduce the portfolio costs over the 20-year planning horizon by over $20 million. The programs are projected to save 2.1 million annual therms and 20,000 peak day therms over the planning period.

· *Two-Year Action Plan.* Cascade's Two-Year Action Plan describes the actions the company will take to further its IRP capability by completing the remaining work in progress items from the 2002 IRP action plan and by refining the basic analyses provided in the 2004 IRP to a more sophisticated and detailed level. Cascade plans to expand its IRP modeling by purchasing the VectorGas program, which will allow the company to prepare Monte Carlo scenario analysis that will measure the impacts of weather and price volatility on its portfolio. Cascade will continue to evaluate the contribution from conservation on constraint areas to estimate avoidable system enhancement costs. The company will look specifically at opportunities to target towns served on the Wenatchee Lateral and in the Bremerton/Shelton areas and evaluate opportunities in the Hermiston, Umatilla, and Stanfield areas for targeted conservation opportunities that could delay projected distribution system enhancements. Demand-side actions include implementation of the new commercial/industrial programs modeled in the IRP in Oregon and Washington and the low-income weatherization program in Washington. Cascade will continue to evaluate the cost effectiveness of new conservation measure technologies. On the supply side, Cascade will evaluate LNG options during the next two years.

Comments of the Parties

The company solicited initial comments from parties, including Staff of both the Oregon and Washington Commissions, within the Technical Advisory Group process prior to issuing the draft 2004 IRP on October 12, 2004. Staff submitted comments on the draft plan on November 15, 2004. Those comments, along with the comments of other parties are included in Appendix A of the company's final 2004 IRP. The Commission received the final IRP on December 16, 2004. Staff solicited comments on the final IRP from the parties on March 24, 2005. No comments were received from

other parties. Staff distributed its draft recommendations and a draft proposed order on the plan to interested parties on June 16, 2005. Cascade filed reply comments to Staff's draft recommendations/order in a letter dated June 30, 2005. Based on Cascade's comments, Staff revised its recommendations and distributed them for further comment on July 7, 2005. Cascade submitted a second response to Staff's revised recommendations in a letter dated July 15, 2005.

Commission Staff Comments. Cascade addressed many of Staff's issues prior to filing its final integrated resource plan on December 16, 2004. Staff recommends the Commission acknowledge Cascade's 2004 IRP, subject to the following five modifications:

1. Cascade must add an action plan item to its Two-Year Action Plan which states, "By October 1, 2005, Cascade will submit a schedule for meeting with Staff over the next 18 months to discuss its critical decision/action points on integrated resource planning components for its next IRP; demand-side activities; gas commodity purchasing, including its financial hedging guidelines and strategies; consideration of uncertainty; transportation; storage; and distribution system planning."

2. Cascade must add an action plan item to its Two-Year Action Plan which states, "By January 1, 2006, Cascade will submit to Staff a full assessment of cost-effective DSM potential in its service territory over the 20-year planning horizon and begin meeting with Staff and other interested parties to discuss implementation of additional energy efficiency program opportunities identified. The company's next IRP will include the full DSM potential analysis and recommend cost-effective programs and annual savings targets for the residential and core commercial/industrial sectors."

3. For its next IRP, Cascade must prepare a more detailed analysis and description of all the available supply options (facilities and commodity) to provide natural gas service to all segments of system needs.

4. Cascade must expand the discussion of how its facilities planning (for the movement and delivery of natural gas) and commodity acquisition planning (the purchase of natural gas supply) are integrated in its next IRP.

5. Cascade must augment the discussion of its competitive bidding practices (particularly for commodity) in its next IRP.

Cascade Natural Gas Reply Comments. In its letter dated July 15, 2005, Cascade agreed to undertake Staff's recommendations 1, 3, 4, and 5. The company also agreed with Staff's recommendation 2 to submit a full assessment of cost-effective DSM potential in its service territory over the 20-year planning horizon by January 1, 2006, and begin meeting with Staff and other interested parties to discuss implementation of

additional energy efficiency program opportunities identified. However, Cascade disagreed with Staff's suggestion in the discussion of the recommendation that "Cascade work with an experienced professional to develop the DSM potential assessment." The company is concerned that the costs of an independent study could more than outweigh the value. Cascade believes the company has adequate information to develop the DSM assessment internally without hiring a professional to develop the study.

OPINION

Jurisdiction

Cascade is a public utility in Oregon, as defined by ORS 757.005, which provides natural gas service to or for the public.

On April 20, 1989, pursuant to its authority under ORS 756.515, the Commission issued Order No. 89-507 in Docket UM 180 adopting least-cost planning for all energy utilities in Oregon.

Requirements for Least-Cost Planning under Order No. 89-507

Order No. 89-507 establishes procedural and substantive requirements for least-cost planning and requires the Commission's acknowledgment of plans that meet the requirements of the order.

Procedural requirements. At a minimum, the least-cost planning process must involve the Commission and public prior to making resource decisions rather than after the fact. *See* Order No. 89-507 at 3.

Cascade sought public input during the planning process by informing the general public about its planning process and by conducting technical conferences on the plan. The company's technical advisory group included representatives from Oregon and Washington Commission Staffs, wholesale natural gas suppliers, industrial customers, consumer advocacy groups and a customer of the company. The group provided input on planning assumptions, energy resource options, and future scenarios that influence both the demand for and supply of energy. The company distributed a draft plan for comment before developing and submitting the final plan to the Commission.

Substantive requirements. The substantive requirements were also set forth in the Commission order as follows:

1. All resources must be evaluated on a consistent and comparable basis.

2. Uncertainty must be considered.

3. The primary goal must be least cost to the utility and its ratepayers consistent with the long-run public interest.

4. The plan must be consistent with the energy policy of the state of Oregon as expressed in ORS 469.010.

Order No. 89-507 at 7.

Evaluation of Resources. Cascade evaluated available resources on a consistent and comparable basis through the use of its linear programming optimization model. Demand-side and supply-side resources have the same input and operating constraint criteria for the optimization model to evaluate the present value cost and energy utilization over the planning horizon. Additionally, environmental externalities were evaluated by adding the cost per therm equivalent of the externality cost values to supply-side resources as described in OPUC Order No. 93-965.

Uncertainty. Cascade's IRP considered planning uncertainty in developing both its demand requirements forecasts and its integrated resource portfolio strategies by developing a range of potential scenarios that reflect uncertainty in various key sectors. In this respect, uncertainty of demand, financial conditions, weather, and environmental costs are reflected in the company's load requirement forecasts and in its resource selection (optimization) process. As a consequence, the company believes the ranges reflected in its scenario analyses are broad enough to ensure that its forecasts and resource selection strategies are sufficiently robust under a wide range of operating circumstances.

Primary Goal of Plan Must Be Least Cost. The objective of least-cost planning is to plan for resources that both meet the needs of the utility's customers and minimize total system costs over the long-term. Cascade's plan includes the IRP goals to "provide reliable services to core market firm natural gas customers while minimizing costs," and to "provide the highest value to all Cascade stakeholders." Cascade's IRP also renews its commitment to "consider supply side and demand side resources on a consistent and comparable basis to achieve the best integrated portfolio." Cascade's linear programming optimization model aids the company in minimizing total system cost to serve its customers' energy needs over the long run.

Consistency with Oregon's Energy Policy. The Legislature mandated certain energy-related goals in ORS 469.010. These goals relate primarily to the development of sustainable energy resources. Cascade's plan is consistent with these goals. The company has included conservation resources in its resource acquisition plan. In

addition, the company has indicated it will continue to assess the potential for additional residential, commercial and firm industrial DSM programs.

We conclude that Cascade has complied adequately with the procedural and substantive requirements of Order No. 89-507 for purposes of this plan.

Commission Decisions on Parties' Comments

Staff's final recommendation document contained five specific recommendations related to Cascade's Two-Year Action Plan, future planning process, and Commission acknowledgment of Cascade's 2004 IRP. There were no additional comments from Oregon parties or customers. Although disagreeing with Staff's suggestion to hire a professional to help develop a full DSM potential study for its service territory, Cascade has generally agreed to undertake all of Staff's recommendations. The Commission believes the recommendations are reasonable. Cascade may develop the analysis of DSM potential with internal resources; however, we agree with Staff that a current, thorough analysis of cost-effective DSM measures and programs should be provided to the Commission by January 1, 2006, and included in the company's next IRP. We adopt Staff's recommendations.

EFFECT OF THE PLAN ON FUTURE RATE-MAKING ACTIONS

Order No. 89-507 sets forth the Commission's role in reviewing and acknowledging a utility's least-cost plan, as follows:

> The establishment of least-cost planning in Oregon is not intended to alter the basic roles of the Commission and the utility in the regulatory process. The Commission does not intend to usurp the role of utility decision-maker. Utility management will retain full responsibility for making decisions and for accepting the consequences of the decisions. Thus, the utilities will retain their autonomy while having the benefit of the information and opinion contributed by the public and the Commission.
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> Plans submitted by utilities will be reviewed by the Commission for adherence to the principles enunciated in this order and any supplemental orders. If further work on a plan is needed, the Commission will return it to the utility with comments. This process should eventually lead to acknowledgment of the plan.

> Acknowledgment of a plan means only that the plan seems reasonable to the Commission at the time the acknowledgment is given. As is noted elsewhere in this order, favorable rate-making treatment is not guaranteed by acknowledgment of a plan.
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> Order No. 89-507 at 6 and 11.

This order does not constitute a determination on the rate-making treatment of any resource acquisitions or other expenditures undertaken pursuant to Cascade's 2004 IRP. As a legal matter, the Commission must reserve judgment on all rate-making issues. Notwithstanding these legal requirements, we consider the integrated resource planning process to complement the rate-making process. In rate-making proceedings in which the reasonableness of resource acquisitions is considered, the Commission will give considerable weight to utility actions which are consistent with acknowledged integrated resource plans. Utilities will also be expected to pursue unanticipated least-cost opportunities beneficial to ratepayers which arise after Commission acknowledgment or, alternatively, explain why such opportunities were not pursued.

CONCLUSIONS

1. Cascade is a public utility subject to the jurisdiction of the Commission.

2. Cascade's 2004 Integrated Resource Plan, with the modifications adopted herein, reasonably adheres to the principles for least-cost planning set forth in Order No. 89-507. The plan will assist in insuring that Cascade's customers receive adequate service at fair and reasonable rates and is otherwise in the public interest.

ORDER

IT IS ORDERED that the 2004 Integrated Resource Plan filed by Cascade Natural Gas Corporation on December 16, 2004, as modified herein, is acknowledged in accordance with the terms of this order and Order No. 89-507.

Made, entered, and effective AUG 09 2005.

Lee Beyer
Chairman

John Savage
Commissioner

Ray Baum
Commissioner